



CAP REGULATION 70-1U

6 AUGUST 2019

OPERATIONS

CIVIL AIR PATROL sUAS FLIGHT MANAGEMENT

SUMMARY OF CHANGES

This is a new document and needs to be reviewed in its entirety.

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1. Overview. This regulation states the responsibilities of all Civil Air Patrol (CAP) personnel with respect to the control and management of CAP small unmanned aerial systems (sUAS) aircrews, aircraft, and flying programs.

2. Applicability. This regulation applies to all CAP sUAS aircrews and all CAP sUAS aircraft as defined in this regulation. This regulation does not apply to CAP sUAS corporate aircraft flown by CAP-USAF personnel, aircraft released to an approved maintenance and repair facility, or other non-CAP member use approved by the CAP-USAF Director of Operations (CAP-USAF/DO). All CAP personnel involved in CAP sUAS flight activities must comply fully with the requirements of 14 CFR Part 107, as well as with the additional CAP-specific standards stated in this regulation. All CAP members must understand that flying CAP sUAS aircraft is a privilege, not a right of membership. Commanders have overall responsibility for compliance with these procedures, which are applicable to all CAP units.

3. Operating Instructions (OI), Pamphlets, Supplements and Waivers to this Regulation. CAP/DO is the approval authority for all OIs, pamphlets, supplements and waivers to this regulation. OIs, pamphlets, and supplements to this regulation cannot be issued below the wing level. Requests for approval of OIs, pamphlets, supplements and waivers must be coordinated through the Wing Commander, Region Commander, CAP-USAF LR/CC, CAP-USAF/DO and CAP/DO.

4. Qualification: CAP sUAS Pilots, sUAS Instructor Pilots, sUAS Check Pilots, sUAS Check Pilot Examiners and sUAS Specialty Qualifications. All CAP sUAS Mission Pilots must hold a Federal Aviation Administration (FAA) Remote Pilot Certificate, be medically capable of safely operating the aircraft and be current in accordance with the requirements of 14 CFR Part 107. To be designated and to operate as a CAP sUAS Pilot in one or more of the classifications listed in Attachment 2 (CAP sUAS Aircrew Definitions) of this regulation, the member must meet the CAP requirements for that classification in accordance with this regulation.

4.1. CAP sUAS Pilot Qualifications

4.1.1. CAP sUAS Recreational Pilot

4.1.1.1. To operate as a CAP sUAS Recreational Pilot, the member must:

4.1.1.1.1 Be qualified to operate a sUAS under 14 CFR Part 101 (Pub. L. 115-254, Section 349); and

4.1.1.1.2 Have the appropriate endorsements from a CAP sUAS Instructor Pilot for the make and model aircraft flown; and

4.1.1.1.3 Have completed a Form 5U check flight by a CAP sUAS Check Airman within the last 12 calendar months.

4.1.1.1.4 Senior Members must have completed Level 1 of the CAP Professional Development Program. Cadet Members must have completed their Level 1 Achievement (Curry).

4.1.2. CAP sUAS Mission Pilot

4.1.2.1. To operate as a CAP sUAS Mission Pilot in rotary wing or fixed wing sUAS the member must:

4.1.2.1.1. Be current and qualified in accordance with the requirements of 14 CFR Part 107 for a remote pilot certificate; and

4.1.2.1.2 Have successfully completed a CAP sUAS Form 5U check flight by a CAP sUAS Check airman within the last 12 calendar months; and

4.1.2.1.2. Have successfully passed a CAP sUAS Mission Pilot Flight Evaluation (CAPF 91U) within the past 24 calendar months; and

4.1.2.1.3. Complete Level I of the senior member professional development program if a senior member or have completed Achievement 1 (Curry) if a cadet member.

4.2. CAP sUAS Instructor Pilot, sUAS Check Pilot, and sUAS Check Pilot Examiner Qualifications

4.2.1. CAP sUAS Instructor Pilot

4.2.1.1. To operate as a CAP sUAS Instructor Pilot, the member must possess a valid FAA 14 CFR Part 107 certificate. In addition, the member must:

4.2.1.1.1. Be current and qualified in accordance with the requirements of 14 CFR Part 107 for the type(s) of instruction to be given; and

4.2.1.1.2. Be current and qualified in accordance with this regulation for the CAP sUAS aircraft to be used for flight instruction; and

4.2.1.1.3. Have successfully passed a Form 5U with an endorsement for CAP sUAS Instructor Pilot privileges in the past 12 calendar months; and

4.2.1.1.4. Be designated as a CAP sUAS Instructor Pilot by the Wing or Region Commander, CAP/DO, or their designee, with the appointment documented in Ops Quals (or with a signed CAPF 2a until this is available in Ops Quals).

4.2.1.1.5. Time logged as an Instructor Pilot may be logged as RPIC time.

4.2.2. CAP sUAS Check Pilot

4.2.2.1. To operate as a CAP sUAS Check Pilot, the member must be a CAP sUAS Instructor pilot in accordance with this regulation. In addition, the member must:

4.2.2.1.1. Have successfully passed the appropriate Form 5U with an endorsement for CAP sUAS Check Pilot privileges in the past 12 calendar months; and

4.2.2.1.2. Be designated as a CAP sUAS Check Pilot by the Wing or Region Commander, CAP/DO, or their designee, with the appointment documented in Ops Quals (or with a signed Form 2a until this is available in Ops Quals); and

4.2.2.1.3. Have successfully passed the online National Check Pilot Standardization Course (sUAS) (NCPSC) prior to initial appointment as a sUAS Check Pilot and at least once every four years thereafter. (Note: Completion of the NCPSC (Airplane) qualifies as completion of the NCPSC (sUAS)); and

4.2.2.1.4. Have accumulated at least 15 hours a sUAS Pilot in Command

4.2.3. CAP sUAS Check Pilot Examiner

4.2.3.1. To operate as a CAP sUAS Check Pilot Examiner, the member must be a CAP sUAS Check Pilot in accordance with this regulation. In addition, the member must:

4.2.3.1.1. Have successfully passed the appropriate Form 5U with an endorsement for CAP sUAS Check Pilot Examiner privileges in the past 12 calendar months; and

4.2.3.1.2. Be designated as a CAP sUAS Check Pilot Examiner by the Wing or Region Commander, CAP/DO, or their designee, with the appointment documented in Ops Quals (or with a signed Form 2a until this is available in Ops Quals); and

4.2.3.1.3. For CAP sUAS Check Pilot Examiner privileges in sUAS, have the required Part 107 privileges and at least 20 hours PIC of sUAS.

4.3. CAP sUAS Specialty Qualifications

4.3.1. CAP sUAS Flight Release Officer (FRO)

4.3.1.1. sUAS FROs must have sUAS flying experience either as a sUAS mission pilot or as an sUAS Technician. sUAS experience may be either internal or external to CAP. FROs do not have to be current to fly within CAP. In order to be an sUAS FRO, personnel must also:

4.3.1.1.1. Pass the online CAP FRO training course every four years or as updated by NHQ; and

4.3.1.1.2. Be designated as a CAP sUAS FRO by the Wing or Region Commander, CAP/DO, or their designee, with the appointment documented in Ops Quals (or with a signed CAPF2a until this is available in Ops Quals).

5. Qualification: Aircraft Types

5.1. To operate as PIC of a CAP sUAS aircraft, a CAP sUAS Pilot must be qualified either as a CAP sUAS Recreational Pilot or as a CAP sUAS Mission Pilot according to the definitions in Section 4 of this regulation and must meet the following requirements for the aircraft to be flown:

5.1.1. Rotary Wing

5.1.1.1. Commercial off the Shelf (COTS) (e.g.: DJI Phantom 3 or 4, Yuneec Typhoon H, DJI Mavic Pro, etc.):

5.1.1.1.1. Completion of the NESA CAP Basic sUAS Pilot course (or CAP/DO, DOU approved equivalent).

5.1.1.2. Complex Airframes (e.g.: Kit built sUAS, InstantEye, Endurance Quad, F800, AFSOC non-COTS aircraft, specially equipped aircraft for COA operations) – in addition to the requirements of the CAP sUAS Pilot must have:

5.1.1.2.1. At least 4 hours PIC time in COTS sUAS; and,

5.1.1.2.2. Completed the NESA CAP Advanced sUAS Pilot training course (or CAP/DO, DOU approved equivalent)

5.1.2. Fixed Wing

5.1.2.1 To operate as a Remote Pilot in Command of a Fixed Wing Airframe - in addition to the requirements of the CAP sUAS Pilot requirements, the member must have:

5.1.2.1.2 Completed the NESA CAP Fixed Wing sUAS Pilot training course (or CAP/DO, DOU approved equivalent).

6. CAP sUAS Pilot Training, Proficiency, and Demonstration Flights

6.1. Eligibility

6.1.1. All CAP members, including cadets, are authorized to use CAP sUAS for initial and transition flight instruction toward any FAA certificate, rating, or endorsement.

6.2 Training

6.2.1 All CAP sUAS Mission Pilots must complete the NESA Advanced sUAS Pilot Course (or CAP/DO, DOU approved equivalent).

6.2.2 All CAP sUAS Technicians must complete the NESA sUAS Technician Course (or CAP/DO, DOU approved equivalent).

6.2.3 CAP sUAS Recreational Pilots must complete a training program that meets the requirements of the AMA and FAA Part 101 (Pub L 115-245, Section 349).

6.3.1 All CAP sUAS Pilots must complete an annual Form 5U flight evaluation from an approved sUAS Check Pilot.

6.3.2 All CAP sUAS Mission Pilots must complete a biennial Form 91U mission flight evaluation from an approved sUAS Check Pilot and possess a current FAA Part 107 Remote Pilot Certificate.

6.3.3 To remain proficient and current, an sUAS Mission Pilot must have accumulated a minimum of 0.3 hour as PIC within the last 90 days. sUAS Pilots may not participate as a sUAS Mission Pilot in a non-training/operational mission unless that sUAS Pilot is current as a sUAS Mission Pilot.

6.4 Recreational Flights

6.4.1 Recreational flights may be conducted by a CAP sUAS Recreational Pilot under the requirements of 14 CFR Part 101 (Pub L 115-254, Section 349).

6.4.2 Night flight, non-VFR, and Beyond Visual Line of Sight flights are prohibited for recreational flights, regardless of existing waivers, for CAP operations, in effect from the FAA.

7. CAP sUAS Pilot Flight Evaluation

7.1. General

7.1.1. The CAP sUAS Pilot Flight Evaluation (CAPF 5U) consists of ground and flight components necessary to evaluate and document a CAP sUAS Pilot's classification in accordance with the requirements of this regulation and their qualification to operate one or more CAP sUAS models. Regarding the operations of a sUAS, the Form 5U must include at least 20 minutes of flight time and a minimum of two takeoffs and landings (not applicable to an abbreviated Form 5U)

7.1.2. The Form 5U may include endorsements for certain types of aircraft operation (e.g., Fixed Wing, Rotary Wing, Instructor/Check Pilot, etc.). All endorsements on a Form 5U for sUAS operations apply to all models for that type (see section 7.1.5).

7.1.3. Unless revoked by a wing or higher commander, the Form 5U is valid through the last day of the twelfth month of its completion date. For example, a flight evaluation completed on 1 January 2017 would remain valid through 31 January 2018.

7.1.4. To act as PIC for a sUAS, a member must pass an initial Form 5U in each CAP sUAS type (e.g., make/model, endorsement, etc.) that they intend to fly. Thereafter, the CAP Pilot may renew qualifications as follows:

7.1.4.1. Fixed Wing: Pass the Form 5U in a Fixed Wing sUAS within the past 12 calendar months.

7.1.4.2. Rotary Wing - COTS: Pass the Form 5U using a COTS airframe within the past 12 calendar months.

7.1.4.3. Complex Rotary Wing - COTS: Pass the Form 5U using a Complex COTS airframe within the past 12 calendar months.

7.1.4.4. Multiple CAP sUAS Pilot Flight Evaluations may still be required for personnel choosing to maintain qualifications in varied types of sUAS as noted in paragraphs 7.1.4.1, 7.1.4.2, and 7.1.4.3.

7.1.5. For aircraft qualification purposes, an initial Form 5U in any of the following model groupings counts as a CAP sUAS Pilot Flight Evaluation for all models listed in that grouping:

7.1.5.1. DJI Phantom 4 counts for Phantom 2 and 3, Mavic Pro, Mavic 2 Enterprise, Spark, and Air

7.1.5.2. DJI Matrice 200 series counts for the DJI Inspire 1 & 2

7.1.5.3. InstantEye Mk 3, Gen 4 counts for the InstantEye Mk3, Gen 5

7.1.5.4. Yuneec H520 counts for Yuneec Typhoon H

7.1.5.5. Fixed Wing Event 38 E384 and E386 are considered equivalent airframes.

7.1.6. Unless otherwise noted by the CAP sUAS Check Pilot, all previous aircraft for which the pilot has an initial CAP sUAS Flight Evaluation are renewed at the time of the annual CAP sUAS Pilot Flight Evaluation. sUAS Check Pilots will confirm that pilots meet all requirements as outlined in other parts of this regulation prior to signing off completion of the Form 5U

7.1.7. If a CAP sUAS Pilot requests to add additional endorsements for sUAS models in the same category and class to an existing pilot qualification, the CAP sUAS Check Pilot has the discretion to administer an abbreviated Form 5U consisting of the questionnaire (Forms 5U fixed wing, Form 5U rotary wing) for the aircraft model to be demonstrated, completed within 60 days before the abbreviated Form 5U and maneuvers that the CAP Check Pilot deems necessary to evaluate the pilot's qualifications for the new endorsement. The abbreviated Form 5U does not change the original expiration date for the CAP Pilot's existing annual qualification.

7.2. Eligibility

7.2.1. To be eligible to take a Form 5U, the member must:

7.2.1.1. Pass the online CAPR 70-1U, Form 5U Annual Examination within 60 days before the date of the Form 5U

7.2.1.2. Complete the appropriate questionnaire (Form 5Q-U, for the make and model of CAP aircraft in which the member is being evaluated.

7.2.1.3. Provide evidence of qualifications to the CAP sUAS Check Pilot, to include: FAA remote pilot certification (if applicable); FAA required safety examination (if applicable); log book; CAP membership card; online CAPR 70-1U, Form 5U Annual Examination, questionnaire and any quiz results needed for special endorsements (such as for Recreational Pilot, Check Pilot, etc.).

7.3. Administration

7.3.1. The following individuals may administer a Form 5U

7.3.1.1 A CAP sUAS Check Pilot who is both FAA- and CAP-current and qualified in the CAP sUAS to be used.

7.3.1.2 A CAP-USAF UAS evaluator pilot, while performing duties of a CAP-USAF UAS evaluator pilot.

7.3.1.3 For a sUAS in cases where the Wing does not have a CAP sUAS Check Pilot for sUAS, the Form 5U may be video taped and submitted to the CAP/DOU or any other approved Check Airman for review and approval.

7.3.2. The individual who administers the CAP sUAS Form 5U must follow the guidance and instructions provided in this regulation.

7.3.3. Except for fees charged by an FAA DPE for a practical test leading to an airman certificate or rating, no person may charge for any ground instruction, flight training, or flight evaluations accomplished in accordance with this regulation.

7.3.4. A CAP sUAS Pilot must obtain written approval from a wing or higher commander to take more than two consecutive Form 5s with the same CAP sUAS Check Pilot.

7.3.5. Except for Counter sUAS personnel, a CAP Pilot must obtain approval from the Standardization and Evaluation Officer (DOV) in their assigned wing to take a Form 5U in another wing.

7.4. Failure, Unsatisfactory Performance and Re-Evaluation

7.4.1. Annual or Abbreviated Flight Evaluation Failure. If a CAP sUAS pilot fails an annual or abbreviated CAP sUAS Remote Pilot Flight Evaluation in a make/model in which the pilot is currently qualified, the pilot must undergo a re-evaluation in accordance with paragraph 7.4.3. The CAP sUAS Check Pilot must document the failure in WMIRS at the conclusion of the failed CAP sUAS Remote Pilot Flight Evaluation and notify the Wing DOV and/or Wing DOU and/or Wing DO and/or Wing Commander (Region DOV and/or Region DOU and/or Region DO and/or Region Commander if the subject pilot is assigned to the region staff).

7.4.2. Initial or Endorsement Flight Evaluation Failure. If a CAP sUAS pilot fails an initial CAP sUAS Remote Pilot Flight Evaluation for a new make/model or fails to qualify for an endorsement (e.g., Demonstration Pilot privileges), such failure does not require re-evaluation under paragraph 7.4.3 unless in the judgment of the CAP Check Pilot that failure resulted from factors that would extend to other makes/models (e.g., poor airmanship, poor judgment). In those cases, the CAP Check Pilot would follow the procedure in paragraph 7.4.1. for annual flight evaluation failure.

7.4.3. Re-evaluation. A wing or higher commander has the discretion to require any sUAS CAP Pilot entering, under, or temporarily in their command to undergo an additional flight evaluation, including local area familiarization, with a designated CAP sUAS Check Pilot. To ensure fairness, commanders should consider designating a different CAP sUAS Check Pilot to conduct a re-evaluation when re-evaluation is due to a failure. Prior to re-evaluation, the Wing DOV and/or the Wing DOU or their designee will approve a plan to ensure that training has been accomplished to correct identified deficiencies. Required training will be accomplished prior to reevaluation. Pending satisfactory completion of the additional flight evaluation, the commander may suspend the CAP sUAS Pilot's CAP sUAS flying privileges except for retraining with a CAP sUAS Instructor Pilot.

8. Suspension of CAP Flying Privileges, Appeals, Reinstatement, and Damages

8.1. Suspension of CAP sUAS Flying Privileges - General. Any commander in a CAP member's chain of command, or an Incident Commander (IC) during a supervised mission, may immediately suspend CAP sUAS flying privileges of a member for cause. In the case of suspending sUAS privileges, this suspension shall not affect the other non-sUAS flight privileges of the pilot, unless those privileges are also suspended in accordance with CAPR 70-1.

8.1.1. Initial suspension notification may be made verbally, but commanders or ICs exercising this authority must notify the affected aircrew member(s) in writing within seven days of suspending sUAS flying privileges, clearly stating the reason(s) the action was taken. A copy of the written notification must be filed with the Region Commander and all intermediate commanders within seven days as well. A copy of all notifications issued by a Region Commander must be filed with

the National Commander.

8.1.2. The written notification must include a statement advising the sUAS team member of their right to appeal this action (see paragraphs 8.3. and 8.4.).

8.2. Suspension of CAP sUAS Flying Privileges - Mishap. Following any sUAS mishap, the commander must suspend the sUAS flying privileges of team members involved in the mishap until such time as they can determine the circumstances of the mishap and the members' health and welfare. Such suspensions may be very temporary in nature, but consideration must be given to causal factors. The flying privileges of any member operating a CAP sUAS who is involved in a mishap that can be classified as an accident as defined in CAPR 62-2, shall be automatically suspended from flying sUAS until the mishap member is reinstated by the Wing Commander or higher. Commanders may choose to suspend the sUAS flying privileges of members involved in other mishaps not classified as accidents at their discretion.

8.2.1 A mishap is defined as "an occurrence other than an accident (or serious incident) that affects or could affect the safety of operations; this includes any damage occurring to the aircraft with the exception of damage to propellers (which are considered consumables)". Mishaps are required to be reported in SIRS.

8.2.1. Should the Wing Commander or higher determine any member to not be a causal factor in a mishap not classified as an accident, those individuals' sUAS flight privileges may be verbally reinstated with no written documentation of their suspension. If suspension was due to an accident refer to paragraph 8.5. for reinstatement guidance.

8.2.2. Should the Wing Commander or higher suspect any member's actions were causal in a mishap, the member's sUAS flying privileges shall remain suspended until a final determination of cause is made. If any member is determined to be causal in the mishap, follow the procedure in paragraph 8.1.

8.3. Appeals – Member Rights. A member who remains suspended from flying sUAS for more than 90 days may submit a one-time written appeal to the Region Commander within one year of the initial suspension. If a Region Commander suspends the flying privileges of a member, the member may appeal to the National Commander.

8.4. Appeals – Command Action. Upon receipt of a member's appeal, the Region Commander, or National Commander in the case of a Region Commander directed suspension, must appoint a sUAS review panel of at least three CAP sUAS Check Pilots to review the appeal.

8.4.1. The sUAS review panel must examine the facts of the case and make a recommendation to the appointing commander.

8.4.2. The appointing commander must issue a final decision within 60 days of receiving the appeal. All such decisions are final and not subject to review by filing a complaint under CAPR 20-2, Complaints, or CAPR 36-2, Complaints under the Civil Air Patrol Nondiscrimination Policy.

8.5. Reinstatement. Once a member's sUAS flying privileges are suspended, only a wing or higher commander in the individual's chain of command may reinstate that member to sUAS flight status. Commanders may set conditions for reinstatement, including completion of a new CAP sUAS Flight Evaluation. Prior to reinstating the sUAS flying privileges of a member involved in an accident, commanders must coordinate with the CAP/DO who will then obtain concurrence of the CAP/CC. Reinstatement and conditions thereof shall be documented.

8.6. Damages. In accordance with (IAW) CAPR 174-1, Property Management and Accountability, a CAP member may be assessed some or all of the damages due to negligent operation of CAP sUAS aircraft

9. CAP sUAS General Operating and Flight Rules

9.1. sUAS Use - General Requirements

9.1.1. All CAP sUAS operations must be conducted in accordance with the requirements of 14 CFR, FAA guidance and any additional requirements or limitations specified in this regulation.

9.1.2. All CAP sUAS (to include member-owned/furnished sUAS) shall be maintained as prescribed in CAPR 66-1U, *CAP sUAS Maintenance Management*. This section shall not apply to CAP provided STEM kit aircraft.

9.1.3. All CAP sUAS aircraft must have a standardized, completed, and up-to-date CAP sUAS Information File (UIF) that can be readily produced with the aircraft at all times. This section shall not apply to CAP provided STEM kit aircraft.

9.1.4. All CAP sUAS operations must be conducted with a minimum of two persons, one of whom must be qualified to act as a sUAS PIC. The other personnel may act as sUAS Technicians or sUAS Trainees, as defined in Attachment 2.

9.2. sUAS Use - Air Force Assigned Missions (AFAM)

9.2.1. CAP sUAS aircraft are the resource of choice for AFAMs. Member owned/furnished aircraft will only be used on AFAMs when CAP corporate aircraft are not available or when mission requirements dictate the usage of non-corporate aircraft.

9.2.1.1. The use of member owned/furnished sUAS requires wing or higher commander approval for each corporate mission and CAP-USAF approval for an AFAM in which the aircraft's use is requested.

9.2.1.1.1 The use of privately-owned aircraft for Counter sUAS ("Red Cell") missions is expressly prohibited.

9.2.1.2. Requests for use of member-owned/furnished sUAS will not be approved unless a copy of a current Hold Harmless Agreement (HHA) and CAPF 71U are on file with at the Wing Headquarters for AFAMs and Corporate Missions. Copies of the current HHA and CAPF 71U should be uploaded to the WMIRS mission files for reference when used since the use of member-owned/furnished aircraft is rare.

9.3. sUAS Use – Recreational Flights

9.3.1. If allowing a cadet to use a "buddy box", the CAP sUAS Recreational Pilot must remain on a set of controls.

9.3.2. All recreational flights must be conducted in accordance with AMA guidance and the applicable FAA regulations for recreational sUAS flight.

9.4. sUAS Use – Prohibited Activities. The following operations are prohibited in CAP sUAS:

9.4.1. Participating as an act or other demonstration in an air show. Note: Static displays and mission assistance properly approved through the NOC is authorized. Refer to CAPR 900-5, for additional guidance on CAP air show support.

9.4.2. The dropping of objects (except when authorized by the CAP/DO or by an FAA COA).

9.4.3. Night flight (except as authorized by an FAA COA).

9.4.4. Flights over people (except as authorized by FAA COA).

9.4.5. Flights beyond visual line of sight of the sUAS, without the use of a visual aid (prescription corrective lenses are permitted) (except as authorized by an FAA COA).

9.4.6. Flights above 400 feet AGL (except as authorized by FAA regulation and/or COA)

9.4.7. Except those missions coordinated and approved through the CAP NOC, use of CAP sUAS aircraft for assistance to law enforcement officers.

9.4.8. Operation by anyone other than a CAP sUAS pilot qualified in type; except for trainees in an approved training program who are under the direct supervision of a current and qualified CAP sUAS Instructor Pilot; or cadets, Aerospace Education Members (AEM), or teachers on Teacher Orientation Program (TOP) on a recreational flight operating under the FAA regulations regarding recreational flights; or.

9.4.9. Personal use, or any use other than official CAP business.

9.4.10. Smoking or the use of any tobacco products (including e-cigarettes) within 100 feet of sUAS operations.

9.5. Aircraft Use – Unauthorized Aircraft. The following aircraft shall not be used in CAP operations:

9.5.1. Non-gyro stabilized sUAS (except those used in aerospace education programs or STEM kits)

9.5.2. Experimental sUAS.

9.6. sUAS Team Requirements

9.6.1. CAP sUAS team members will carry proof of CAP membership and a government issued picture identification.

9.6.2. All CAP sUAS Pilots must maintain current CAP and FAA (if applicable) sUAS pilot qualification data, to include uploaded documentation required for validation, within the Ops Quals system. Flight evaluation forms will be uploaded into Ops Quals within 72 hours of evaluation completion and retained in accordance with CAPR 10-2. Data entries must include:

9.6.2.1. All relevant FAA sUAS pilot qualifications, with copies of current pilot sUAS certificate.

9.6.2.2. Current Form 5U and Form 91U CAP Mission Pilot Checkout and supporting CAP qualifications and endorsements (e.g., CAP Demonstration Pilot, Instructor, etc).

9.6.2.3. All CAP sUAS pilots must make a one-time acknowledgement of the CAP Statement of Understanding by dating the Statement of Understanding paragraph in the Ops Quals system.

9.6.3. The CAP sUAS PIC will also verify agency or organization identification credentials of CAP and non-CAP team members (when authorized by agreement or mission approval) or CAP and non-CAP passengers to validate their identity prior to departure from the mission base (see paragraph 9.10.9.).

9.7. sUAS Duty Period and Rest Requirements

9.7.1. Duty Period. A sUAS Team's duty period starts when a team member reports for any CAP-related duty. It ends with the sortie to be performed during the team's duty period when the team has arrived back at its mission base and the equipment is secured. Fourteen hours is the maximum for official CAP sUAS team member duty.

9.7.1.1. When approved by the Wing Commander, Vice Commander, or Director of Operations (or higher command level), the PIC may extend the maximum sUAS team duty period within the period up to two hours to compensate for unplanned sortie delays, provided the additional time (in excess of the standard requirements listed in this regulation) is individually agreed by all team members conducting the respective mission, and that the commander and the PIC make an appropriate risk assessment. Duty periods beyond a total of 16 hours will not be authorized.

9.7.1.2. sUAS pilots shall not be scheduled for more than six (6) hours of flight time between periods of crew rest.

9.7.1.3. sUAS pilots shall not be scheduled for more than two (2) hours of continuous sUAS flying without a one (1) hour period of non-sUAS activity between flight periods

9.7.2. Crew Rest. Aircrew members must have ten hours of crew rest between the last official CAP duty and the first official CAP duty in the next duty period.

9.7.2.1. This period accommodates the opportunity for eight hours of uninterrupted crew rest/sleep and two hours of personal preparation/travel time.

9.7.2.2. Crew rest periods cannot begin until after the completion of official duties. Preparing/maintaining the sUAS, de-briefing, uploading imagery, or other official business that requires active participation of an aircrew member interrupts or delays that aircrew member's crew rest period.

9.7.3. sUAS Team Member Responsibility. Notwithstanding other provisions of this section, each sUAS team member is individually responsible to ensure that they obtain sufficient rest during crew rest periods and is healthy enough to fly. Personnel will not be allowed to serve as sUAS team members when they are fatigued, sick or otherwise considered unsafe to fly. Incident staff and sUAS team members will consider external factors when scheduling and approving sorties like a member's outside employment schedule.

9.8. Uniform Requirements

9.8.1. sUAS. CAP sUAS team members will wear an authorized CAP uniform as outlined in CAPM 39-1, unless approved mission requirements dictate other attire. Deviations from CAPM 39-1 uniforms require CAP/DO or higher approval.

9.9. sUAS Mission Planning

9.9.1. Briefings. In all CAP sUAS operations, the PIC must provide appropriate team briefings, to include the mission parameters, equipment performance expectations, emergency procedures, and crew coordination. The PIC must also brief all team members to use sterile operational area procedures during all portions of flight and to bring safety of flight concerns (e.g., potentially conflicting traffic, mechanical problems) to the immediate attention of the PIC.

9.9.2. Checklist. Use of manufacturer's checklist or an NHQ-approved checklist is mandatory when using CAP sUAS aircraft. The sUAS Team must review and accomplish all checklist items. All new CAP aircraft checklists and checklist modifications/revisions require proper coordination in the

following order: The respective CAP Wing DOU, Wing DO, CAP Wing Commander, CAP-USAF/LR, CAP-USAF/DO, CAP/DOU, CAP/DOV and CAP/DO approval.

9.9.3. Low Altitude Authorization Notification Capability (LAANC). The PIC must file and receive FAA approval via the LAANC system for airspace within LAANC enabled areas.

9.9.3.1. For Class B, C, D, and Surface E airspace for which the LAANC system is not enabled, FAA airspace waivers (other than LAANC) must be coordinated through the NOC and/or the CAP/DOU.

9.9.4. Call Signs: UAS Remote Pilots will follow established incident communications protocols and will make radio calls with the following information:

- A. "CAP / USAF Approved Call Sign (Cicada or Triad)" Unmanned
- B. Wing, Region, NHQ single or two-digit designator
- C. Configuration (fixed or rotor-wing)
- D. USAF UAS Group Number (1, 2, 3 or 4)
- E. Agency/Interagency assigned aircraft number.

Call Sign Examples

- A. "Cicada Unmanned 23R41" (MOWG, Rotor Wing, Group 4 UAS, #1) stated: "Cicada Unmanned Twenty-three Romeo Four One"
- B. "Cicada Unmanned 12F12" (INWG, Fixed Wing, Group 1 UAS, #2) stated: "Cicada Unmanned Twelve Foxtrot One Two"
- C. "Triad Unmanned 94R23" (SER, Rotor Wing, Group 2 UAS, #3) stated "CAP Unmanned Ninety-Four Romeo Two Three"

9.9.4.1 When ADS-B equipped, IAW 14 CFR 91.227, the call sign must align perfectly with the Flight ID programmed into the ADS-B transponder.

9.9.5 Battery/Reserve Fuel: all sUAS flights must be planned such that a critical battery/fuel (typically 20%) level remains in reserve upon landing.

9.9.6 International Boundaries. Sorties across an international border require CAP/DO approval.

9.9.7 With CAP's evolving missions, it is critical that important messages and changes be provided to all operations personnel, and confirmation that it has been received documented. CAP/DO will maintain a read file tool in WMIRS, and issue optional and mandatory messages in this tool.

9.9.7.1 When mandatory messages are issued, members will not be able to move forward in WMIRS until they have read and acknowledged the message.

9.9.7.2 Optional messages can be reviewed at the user's discretion when able.

9.9.7.3 Personnel can review all current messages, in WIMRS, even after having read and acknowledging them should the need arise.

9.10. Normal Operating Procedures

9.10.1.1. When operating CAP aircraft, CAP Pilots must use Risk Management (RM), Crew Resource Management (CRM) and good judgment for the planned flight activity.

9.10.1.2. An Pre-flight Risk Assessment Worksheet (RAW) assessment is mandatory for CAP flight operations. The PIC will complete an electronic RAW assessment whenever possible. In locations where electronic completion of the RAW assessment is not possible, the PIC must use a paper RAW assessment to evaluate risk and provide the data or paper form to the FRO for entry.

9.10.1.3. In situations where both the PIC and FRO are not able to access WMIRS at the time of release to enter RAW data, the PIC must upload the RAW data used for the flight into WMIRS within 72 hours of landing.

9.10.1.4. RM is an evolving process along with the missions that continue to change. RAW scores, and who can approve sorties based on the risk associated, will change. Should a non-standard event occur such as a change in operations area, fixed wing landing/takeoff area length, visibility/ceilings, wind conditions or aircraft malfunction occur that directly affects the safe and effective execution of the sortie, the PIC shall contact the appropriate flight release authority for an amended flight release. These factors have separate criteria for FRO or higher approval, but in combination with other factors (such as pilot experience) may necessitate a greater level of approval.

CAP/DO will publish RAW score levels in WMIRS that can be approved by:

9.10.1.4.1. FROs;

9.10.1.4.2. FROs with the concurrence of a Wing or higher Commander, Vice Commander or Director of Operations;

9.10.1.4.3. CAP/DO or designees via the NOC.

9.10.2. Flight Release

9.10.2.1. A flight release is required prior to departure for all CAP sUAS sortie activities. Except as indicated below, each flight release must be issued via the eFlight Release function in WMIRS.

9.10.2.1.1. If WMIRS is not available, the CAP sUAS Sortie/Flight Release Log (CAPF 99U) may be used to temporarily document the flight release. A flight released via CAPF 99U must be recorded as an eFlight Release in WMIRS within 24 hours unless the NOC is informed of extenuating circumstances.

9.10.2.2. The sUAS PIC must obtain the flight release from a designated FRO via in-person or telephone conversation and notify the FRO of any changes made prior to departure.

9.10.2.3. The FRO is responsible for verifying appropriate information, authorizing a CAP sUAS pilot to fly as pilot in command in CAP aircraft, documenting the appropriate mission symbol,

9.10.2.4. An FRO may not release a flight on which he or she is serving as part of the sUAS team in any capacity.

9.10.2.5. ICs or other incident staff officers on supervised missions may only release sUAS flights related to that mission at their FRO level of authority. Sorties with operational risk

management scores requiring approval from a higher authority must still be referred to higher authorities (see paragraph 9.10.1.4.).

9.10.3. Preflight. CAP pilots should thoroughly review any pertinent sUAS aircraft maintenance records prior to flight to determine if the sUAS aircraft is airworthy. All aircraft damage found must be input into the aircraft's maintenance records

9.10.4. Ground operations

9.10.4.1. Flight Controls. Except for flight instruction under direct supervision of a qualified CAP sUAS Instructor, during CAP flight evaluations, and during recreational flights for cadet aerospace education or cadet programs, only a qualified CAP sUAS Pilot may handle the controls of a CAP sUAS during flight. In these cases, a qualified CAP pilot must be directly observing the operation and be able to immediately assume control of the aircraft,

9.10.4.2. Clearance:

9.10.4.2.1. Within 3 feet of any obstacle, sUAS pilots shall not "fly and walk" a sUAS around said obstacle.

9.10.4.2.2. CAP sUAS Team personnel may not hand launch or recover rotary wing sUAS aircraft.

9.10.4.3. All engines/motors will be shut down prior to any personnel being permitted to approach any CAP sUAS aircraft on the ground.

9.10.4.4. An exception to 9.10.4.3 is made for InstantEye engine/motor tests, and the hand launching of the E384 fixed wing UAS.

9.10.5. Takeoff and Landing

9.10.5.1. Protective Equipment. All sUAS team members must wear the mission and/or IC prescribed safety equipment from prior to takeoff until after landing.

9.10.5.2. Minimum flight visibility of three statute miles, with VFR ceilings for the airspace being used is required for all VFR flights unless the pilot in command (PIC) is operating under an approved FAA COA permitting said flight.

9.10.5.3. Wind specific limitations are as follows:

9.10.5.3.1.1 sUAS fixed wing operations with surface winds greater than 25 knots in any direction including gusts are not allowed.

9.10.5.3.1.2 sUAS rotary wing operations with surface winds greater than 30 knots in any direction including gusts are not allowed.

9.10.5.4. Icing. CAP sUAS aircraft will not be flown into known or forecast icing conditions in the area of operations.

9.10.9. Postflight:

9.10.9.1. A post-flight inspection is required to be completed in accordance with the published checklists.

9.10.9.2. At the end of each flight, the sUAS PIC must record all flight time in WIMRS in the sortie's Form 109U. Wings must make any necessary corrections to aircraft flying time totals

in WMIRS for each month no later than the 20th of the following month. After making any correction, validate each aircraft's flying time using the Form 18 process.

9.10.9.3. Discrepancies must be reported and documented in the UAS Information File (UIF). If a discrepancy grounds the aircraft, the pilot must also place the red sUAS Aircraft Grounded Placard from the UIF on the sUAS's Carrying case.

9.10.9.4. For every CAP sortie, the PIC must enter all sortie data, to include actual costs, into WMIRS Form 109 and Form 109U within 72 hours of its completion. See CAPR 173-3.

9.11. Standardization and Evaluation Reports

9.11.1 Pilot Flight Evaluation. Check Pilots shall report Form 5 and Form 91 failures to the appropriate DOV and DOU (Wing or Region) via email. The email report shall contain the completed evaluation form and any recommendations regarding remediation. The receiving DOV/DOU shall forward this report to CAP/DOV as soon as practical after receipt. CAP/DOV shall collect this data; correlate it with other information sources; conduct an analysis; then produce a semi-annual FY report describing the organization's observed performance and recommendations for improvement, if required.

9.11.2 Preflight Risk Assessment and Flight Release. At the conclusion of each FY, CAP/DOV will conduct an annual review of mishap, eRisk and eRelease data to ascertain RM performance and risk tolerance by mission area and to identify risk assessment trends. This information will be used to support improvement of risk assessment policy, processes, training and tools.

Attachment 2 - GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References.

U.S. Code Title 49, Subtitle VII, Part A, Subpart iii: Safety, Chapter 447 Safety Regulation.

14 Code of Federal Regulations, Part 1, *Definitions and Abbreviations*

14 Code of Federal Regulations, part 61, *Certification: Pilots, Flight Instructors and Ground Instructors*

14 Code of Federal Regulation, part 91, *General Operating and Flight Rules*

14 Code of Federal Regulation, Part 107, *Small Unmanned Aircraft Systems*

14 Code of Federal Regulation, part 142, *Training Centers*

AFI 10-2701 Organization and Function of the Civil Air Patrol

CAP-USAFI 10-2701, Civil Air Patrol Operations and Training

CAPR 10-2, Files Maintenance and Records Disposition

CAPR 20-2, Complaints

CAPR 35-6, Operations Ratings, Awards and Badges

CAPR 36-2, Complaints under the Civil Air Patrol Nondiscrimination Policy

CAPM 39-1, CAP Uniform Manual

CAPR 39-2, Civil Air Patrol Membership

CAPR 60-3, CAP Emergency Services Training and Operational Missions

CAPR 62-2, Mishap Reporting and Review

CAPR 66-1U, CAP sUAS Aircraft Maintenance Management

CAPR 173-3, Payment for Mission Support

CAPR 174-1, Property Management and Accountability

CAPR 900-5, Civil Air Patrol Insurance/Benefits Program

Forms Prescribed.

CAP Form 5U – CAP sUAS Pilot Flight Evaluation

CAP Form 5Q-U – sUAS Questionnaire

CAP Form 71U – CAP sUAS Aircraft Inspection Checklist

CAP Form 91U – CAP sUAS Mission Pilot Flight Evaluation

CAP Form 99U – CAP sUAS Flight Release Log

CAP Form 109U – CAP sUAS Sortie Flight Log

Acronyms.

ACS – Airman Certification Standards

AFAM – Air Force Assigned Mission

AGL – Above Ground Level

ASI – FAA Aviation Safety Inspector

CAP – Civil Air Patrol

CAP/DO – National Headquarters Director of Operations

CAP/DOV – National Headquarters Standards and Evaluation Officer

CAP/DOU – National Headquarters Small Unmanned Aerial Systems Project Manager

CAPF – Civil Air Patrol Form

CAPM – Civil Air Patrol Manual

CAPR – Civil Air Patrol Regulation

CAP-USAF – Civil Air Patrol-United States Air Force

CAP-USAF/DO – CAP-USAF Director of Operations

CAP-USAF LR – CAP-USAF Liaison Region

CAP-USAF LR/CC – CAP-USAF Liaison Region Commander

CFR – Code of Federal Regulations

DO – Director of Operations

DOV – Standardization and Evaluation Officer

DOU – Unmanned Aerial Systems Officer

DPE – Designated Pilot Examiner

FBO – Fixed Base Operator

FRO – Flight Release Officer

HHA – Hold Harmless Agreement

IACE – International Air Cadet Exchange

IC – Incident Commander

IFR – Instrument Flight Rules

JROTC – Junior Reserve Officer Training Corps

LAANC – Low Altitude Authorization Notification Capability

MSL – Mean Sea Level

NCPSC – National Check Pilot Standardization Course

NHQ – National Headquarters Civil Air Patrol

nm – Nautical Miles

NOC – Civil Air Patrol National Operations Center

PIC – Pilot in Command

PTS – Practical Test Standards

ROTC – Reserve Officer Training Corps

sUAS – small Unmanned Aerial System

UIF – sUAS Information File

VFR – Visual Flight Rules

WMIRS - Web Mission Information Reporting System

Terms.

Definitions. All definitions used in CAP are consistent with those in 14 CFR parts 1, 61, 91, and 107;

except for the following CAP-specific terms:

CAP Aircraft Definitions

CAP sUAS Aircraft – Any aircraft (CAP corporate or member owned or furnished) used in a CAP sUAS flight activity. Categories of CAP sUAS Aircraft include:

- a) CAP Rotary Wing sUAS
- b) CAP Fixed Wing sUAS

CAP sUAS Corporate Aircraft – Any sUAS aircraft owned by and registered to, or under an exclusive lease to, CAP.

CAP Aircrew Definitions

CAP sUAS Check Pilot – A CAP sUAS pilot who is qualified and authorized in accordance with this regulation to administer an initial or renewal CAP proficiency checks to CAP member pilots in CAP aircraft, and to endorse the CAP Form 5U.

CAP sUAS Check Pilot Examiner – A CAP sUAS pilot who is qualified and authorized in accordance with this regulation to administer an initial or renewal flight check to CAP member sUAS pilots in CAP sUAS aircraft for CAP sUAS Check Pilot privileges, and to endorse the CAP Form 5U accordingly.

CAP sUAS Flight Release Officer (FRO) – A CAP member who is qualified and authorized in accordance with this regulation to release CAP sUAS flights.

CAP sUAS Instructor Pilot – A CAP sUAS pilot who is qualified and authorized in accordance with this regulation to give flight instruction to CAP members.

CAP sUAS Demonstration Pilot – A CAP sUAS pilot who is qualified and authorized in accordance with this regulation to conduct Demonstration Flights for CAP cadets.

CAP sUAS Mission Pilot – See CAPR 60-3.

CAP sUAS Mission Check Pilot – See CAPR 60-3

CAP sUAS Mission Check Pilot Examiner – See CAPR 60-3.

CAP sUAS Pilot – A CAP sUAS pilot who is qualified and authorized in accordance with this regulation to operate as pilot in command of CAP aircraft.

Current - Denotes that the applicable requirements of 14 CFR 107, 14 CFR 61.57 and/or 61.69 are met.

Current and Qualified – Current and Qualified – Denotes that that the applicable requirements of [14 CFR](#) (107, 61.57 and 61.69) and all CAP qualification requirements defined in this regulation are met.

DOU – Abbreviation and office symbol for sUAS Officer at the national, region, wing, or squadron level.

DOV – Abbreviation and office symbol for Standardization and Evaluation (Stan/Eval) Officer at the national, region, wing or squadron level.

Operations Qualifications (Ops Quals) – The CAP online application used to enter, validate, and document aircrew members' qualifications and currency for CAP flight activities.

CAP Flight and Mission Definitions

Air Force Assigned Mission – As defined in AFI 10-2701, Organization and Function of the Civil Air Patrol, any CAP flight or ground activity that the Air Force approved under an A or B mission symbol. See also CAP-USAFI 10-2701, Civil Air Patrol Operations and Training.

Abbreviated – A CAP Flight Evaluation process used to add or update endorsements or aircraft models in the same category and class on the CAP Pilot's current CAPF 5. There are no minimum requirements for flight time or landings. An abbreviated CAPF 5 does not change the expiration date for any pilot privileges.

Annual – CAP sUAS Pilot Flight Evaluation in a specific make and model (see definition for Initial); not to be confused with an annual inspection of an aircraft IAW CAPR 66-1.

CAP Corporate Mission – Any CAP flight activity that is not an Air Force Assigned Mission (AFAM).

CAP Form 5U – CAP form used to document a CAP pilot's annual CAP Pilot Flight Evaluation in a specific make and model of sUAS.

CAPF 91U – CAP form used to document the checkout sUAS flight for the CAP sUAS Mission Pilot emergency services specialty qualification.

CAP sUAS Flight Activity – Any CAP sUAS aviation operation subject to this regulation.

Endorsement – Recommendation for approval by a CAP sUAS Check Pilot for a qualification (Demonstration Pilot, Instructor Pilot or Check Pilot) to fly in different types of conditions or to fly certain aircraft (RW, FX, or complex).

Evaluation – See definition for Pilot Flight Evaluation.

Flight – is a takeoff and landing of a sUAS aircraft.

Flight Release Officer – See CAP Flight Release Officer.

Initial – First annual CAP sUAS Pilot Flight Evaluation in a specific make and model (see definition for Annual).

Mission – A Civil Air Patrol Corporate or Air Force approved flight activity assigned a number in WMIRS made up of one or more sorties (see definition for Sortie and WMIRS).

Mission Symbol – The alphanumeric code used on the flight release and other mission documentation to denote the type of mission assigned/authorized for a given CAP flight activity.

Pilot sUAS Flight Evaluation – The Annual or Initial check out flight for a CAP pilot qualification utilizing the CAPF 5U (see definitions for Annual, Initial, CAPF 5U).

Sortie – A CAP sUAS flight activity that begins when the team departs a mission base or home location. A single sortie may include multiple flights. It ends when any of the following occurs:

- a) There is a crew change that changes the pilot(s) within the sUAS sortie.
- b) The sUAS team arrives back at the mission base or home location.

Supervised Mission – A CAP flight activity that is under the direct control of an incident commander (IC) IAW CAPR 60-3, CAP Emergency Services Training and Operational Missions, or counterdrug mission director (CMD) IAW CAPR 60-6, CAP Counterdrug Operations.

Suspension – Action by a commander or IC during a supervised mission that prohibits a CAP member from exercising their CAP flying privileges.

WMIRS (Web Mission Information Reporting System) – The online CAP application used to track CAP missions, sorties, flight releases, aircraft maintenance status and aircraft scheduling.